## 2<sup>nd</sup> Quarterly Report

## **PUBLIC REPORT**

Date of Report: February 6, 2019

Agreement Number: 693JK31810002

Prepared for: US DOT/PHMSA

Project Title: On-Board Power and Thrust Generation for the Explorer Family of Robots for the for the Inspection of Unpiggable Natural Gas Pipelines

Prepared by: NYSEARCH/Northeast Gas Association

Contact Information: Daphne D'Zurko; 973-265-1900, ext. 214; ddzurko@northeastgas.org

For quarterly period ending: January 31, 2019

**Results and Conclusions:** Technical work continued on developing and analyzing concepts for the energy and thrust generating module to be integrated on the Explorer 20/26 in order to improve robot range. Work progressed in analyzing various options for submodule components. Work was also initiated on designing the turbine system.

**Plans for Future Activity:** In the next reporting period, we expect to finalize the concepts of the subcomponents of the system and for the power generation system.